

Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-2789

Name: MD 151 over MD 150

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended _____	Eligibility Not Recommended <u>X</u>
Criteria: <u> </u> A <u> </u> B <u>X</u> C <u> </u> D Considerations: <u> </u> A <u> </u> B <u> </u> C <u> </u> D <u> </u> E <u> </u> F <u> </u> G <u> </u> None	
Comments: _____	
Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u>3 April 2001</u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u>3 April 2001</u>

gms

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. BA-2789

SHA Bridge No. 3098 Bridge name MD 151 over MD 150

LOCATION:

Street/Road name and number [facility carried] MD 151 eastbound and westbound (Point Boulevard)

City/town Rosendale Vicinity X

County Baltimore

This bridge projects over: Road X Railway _____ Water _____ Land _____

Ownership: State X County _____ Municipal _____ Other _____

HISTORIC STATUS:

Is the bridge located within a designated historic district? Yes _____ No X

National Register-listed district _____ National Register-determined-eligible district _____

Locally-designated district _____ Other _____

Name of district _____

BRIDGE TYPE:

Timber Bridge _____:

Beam Bridge _____ Truss -Covered _____ Trestle _____ Timber-And-Concrete _____

Stone Arch Bridge _____

Metal Truss Bridge _____

Movable Bridge _____:

Swing _____

Vertical Lift _____

Bascule Single Leaf _____

Retractable _____

Bascule Multiple Leaf _____

Pontoon _____

Metal Girder X _____:

Rolled Girder X _____

Plate Girder _____

Rolled Girder Concrete Encased _____

Plate Girder Concrete Encased _____

Metal Suspension _____

Metal Arch _____

Metal Cantilever _____

Concrete _____:

Concrete Arch _____ Concrete Slab _____ Concrete Beam _____ Rigid Frame _____

Other _____ Type Name _____

DESCRIPTION:

Setting: Urban X Small town Rural

Describe Setting:

Bridge No. 3098 is a dual bridge that carries MD 151 (Point Boulevard) westbound and eastbound over MD 150 (Eastern Avenue) in Baltimore County. MD 151 runs northeast-southwest and MD 150 runs southeast-northwest. The bridge is located in the vicinity of Rosendale, and is surrounded by commercial development.

Describe Superstructure and Substructure:

Bridge No. 3098 is a dual, 2-span, 2-lane, metal girder bridge. The bridge was originally built in 1942, and the current decks were added in 1984. The structure is 162 feet long and has a clear roadway width of 37 feet; there are two (2) sidewalks measuring 4 feet wide. The out-to-out width is 47 feet. The superstructure of each structure consists of ten (10) rolled girders which support a concrete deck and concrete parapets with metal, pedestrian barriers. The girders are 14 inches x 36 inches and are spaced 8 feet, 10 inches apart. The roadway is carried on the girders. The concrete deck is 7.5 inches thick and it has a bituminous wearing surface. The structure has concrete parapets with pedestrian barriers, and the roadway approaches are tangent and level with the bridge. A date impression on the south parapet indicates that the bridge was constructed in 1942 and was rehabilitated in 1984. The substructure consists of two (2) concrete abutments and a concrete pier at mid-length. There are four (4), straight, concrete wing walls. The bridge has a sufficiency rating of 38.9.

According to the 1995 inspection report, this structure is in fair condition with minor section loss, cracking, spalling, and scour. The concrete deck has several fine longitudinal cracks. The concrete has vertical cracking in the abutments, pier, and wing walls. The west abutment also contains minor scaling. The steel girders contain moderate to heavy rust at their ends and there are areas of peeling paint throughout. The bearings at both abutments are also rusted. The concrete parapets and pedestrian barriers are in good condition, but the fence has areas of rust.

Discuss Major Alterations:

The original decks and parapets were replaced in 1984. In 1991, the wing walls and beam seats were repaired.

HISTORY:

WHEN was the bridge built: 1942

This date is: Actual X Estimated

Source of date: Plaque X Design plans County bridge files/inspection form

Other (specify): State Highway Administration bridge files/inspection form

WHY was the bridge built?

The bridge was constructed in response to the need for more efficient transportation network and increased load capacity.

WHO was the designer?

State Roads Commission

WHO was the builder?

Unknown

WHY was the bridge altered?

The bridge was altered to correct functional or structural deficiencies.

Was this bridge built as part of an organized bridge-building campaign?

Unknown

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:

A - Events _____ B- Person _____
C- Engineering/architectural character _____

This bridge does not have National Register Significance.

Was the bridge constructed in response to significant events in Maryland or local history?

Metal girder bridges were most likely introduced and first popularized in Maryland by the state's major railroads of the nineteenth century including the Baltimore and Susquehanna, its successor the Northern Central, and the Baltimore and Ohio Railroad. Bridge engineering historians have documented the fact that James Milholland (or Mulholland) erected the earliest plate girder span in the United States on the Baltimore and Susquehanna Railroad in 1846 at Bolton Station, near present-day Mount Royal Station. The sides (web) and bottom flange of Milholland's 54-foot-long span were wholly of wrought iron and included a top flange reinforced with a 12x12-inch timber. Plates employed in the bridge were 6 feet deep and 38 inches wide, giving the entire bridge a total weight of some 14 tons. Milholland's pioneering plate girder cost \$2,200 (Tyrrell 1911:195). By December 31, 1861, the Northern Central Railroad, which succeeded the Baltimore and Susquehanna, maintained an operating inventory in Maryland of 50 or more bridges described simply as "girder" spans, in addition to a number of Howe trusses. Most of these were probably iron girder bridges; the longest were the 117-foot double-span bridge over Jones Falls and the 106-foot double-span girder bridge at Pierce's Mill (Gunnarson 1990:179-180).

As in the nation, girder bridge technology in Maryland was quickly adapted to cope with the increasingly heavy traffic demands of the twentieth century caused by automobile and truck traffic. The 1899 Maryland Geological Survey report on highways noted that "there are comparatively few I-beam bridges, one of the cheapest and best forms for spans less than 25 or 30 feet" (Johnson 1899:206). Interestingly, the report also urged construction of a composite metal, brick, and concrete bridge, noting that "no method of construction is more durable than the combination of masonry and I-beams, between which are transverse arches of brick, the whole covered with concrete, over which is laid the roadway" (Johnson 1899:206). Whether any such bridges (transitional structures between I-beams and reinforced concrete spans) were built is unknown.

Official state and county highway reports—issued between 1900 and the early 1920s through the Highway Division of the Maryland Geological Survey and its successor, the State Roads Commission—generally do not reference or describe girder construction. An analysis of the current statewide listing of county and municipal bridges (a listing maintained by the State Highway Administration) reveals that 48 county bridges, out of the total of 141 approximately dated to "1900" by county engineers, were listed as steel girder, steel stringer, or variants of such terms. (It should be noted that the "1900" date is often given when no exact date is pinpointed for a bridge that is clearly old). A grand total of 200 bridges (including "steel culverts"), out of 550 bridges dated on the county list between 1901 and 1930, were described as steel beam, steel girder, or steel stringer and girder varieties. The total suggests that among the various highway bridge types built in the early twentieth century metal girder bridges in Maryland between 1900 and 1930 were second in popularity only to reinforced concrete bridges. However, these numbers must be interpreted with caution, as they do not necessarily include all county and municipal bridges.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

There is no evidence that the bridge had a significant impact on the growth and development of an area.

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?

The bridge is located in an area which does not appear to be eligible for historic designation.

Is the bridge a significant example of its type?

A significant example of a metal girder bridge should possess character-defining elements of its type, and be readily recognizable as an historic structure from the perspective of the traveler. The integrity of distinctive features visible from the roadway approach, including parapet walls or railings, is important in structures which are common examples of their type. In addition, the structure must be in excellent condition. This bridge does not retain its integrity of distinctive features visible from the roadway, as the original parapets were removed and modern concrete parapets with pedestrian barriers were installed during the 1981 deck replacement. Due to the alterations of these elements, the structure is an undistinguished example of a metal girder bridge.

Does the bridge retain integrity of important elements described in Context Addendum?

The bridge retains the character-defining elements of its type, as defined by the Statewide Historic Bridge Context, including rolled longitudinal beams, concrete abutments, and concrete piers. However, distinctive elements such as the original parapets have been replaced.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?

This bridge is not a significant example of the work of the State Roads Commission in the 1940s.

Should the bridge be given further study before an evaluation of its significance is made?

No further study of this bridge is required to evaluate its significance.

BIBLIOGRAPHY:

County inspection/bridge files _____ SHA inspection/bridge files X
Other (list):

Gunnarson, Robert

1990 *The Story of the Northern Central Railway, From Baltimore to Lake Ontario.* Greenberg Publishing Co., Sykesville, Maryland.

Johnson, Arthur Newhall

1899 *The Present Condition of Maryland Highways. In Report on the Highways of Maryland.* Maryland Geological Survey, The Johns Hopkins University Press, Baltimore.

Tyrrell, Henry G.

1911 *History of Bridge Engineering.* Published by author, Chicago.

SURVEYOR:

Date bridge recorded 2/28/97
Name of surveyor Caroline Hall/Eric F. Griffitts
Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204
Phone number (410) 296-1685 FAX number (410) 296-1670

Maryland Historic Highway Bridges

Bridge Type METAL GIRDER

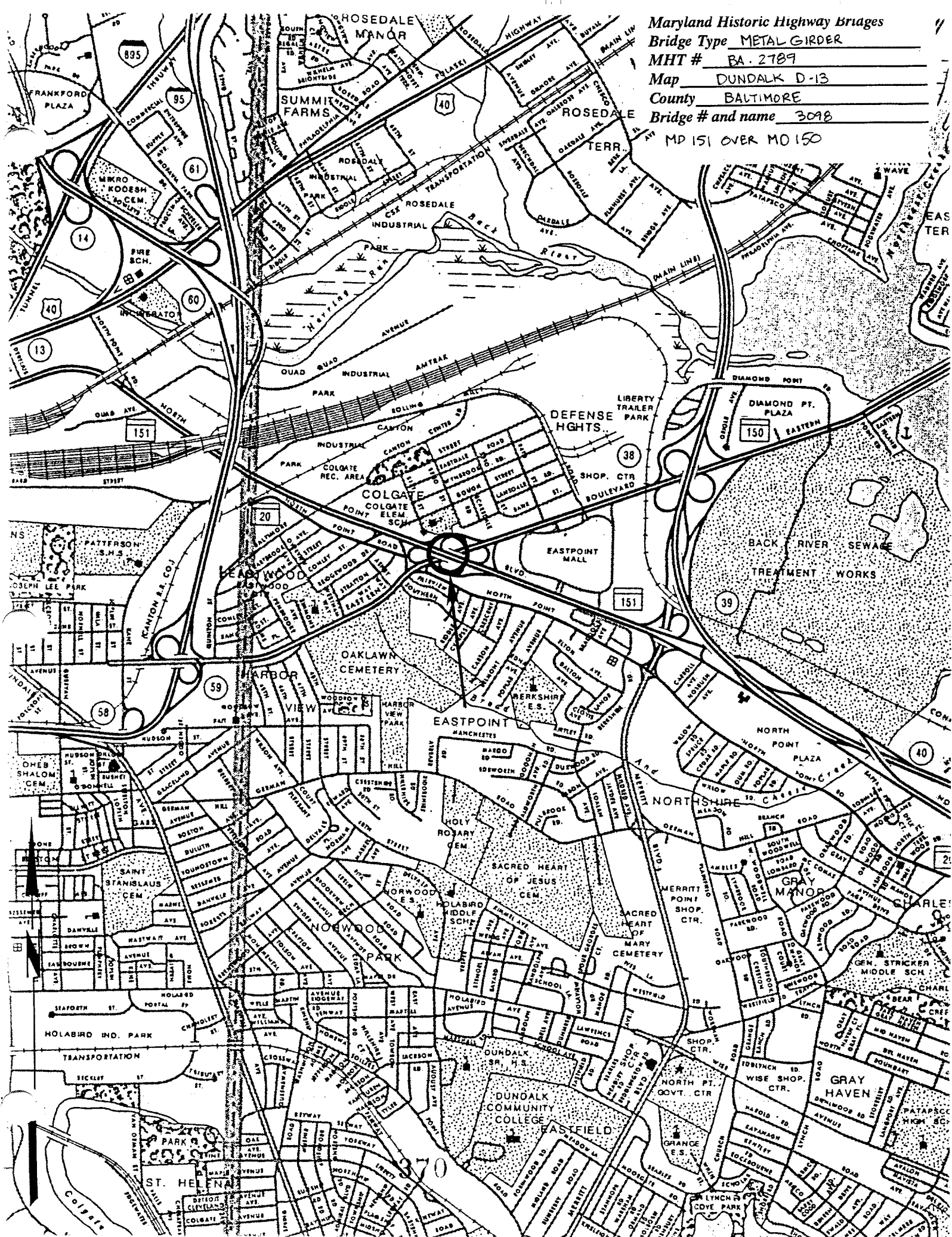
MHT # BA-2789

Map DUNDALK D-13

County BALTIMORE

Bridge # and name 3098

MD 151 OVER MD 150





1. BA-2789
2. MD 151 over MD 150
3. Baltimore County
4. Eric Greffitts
5. 3/97
6. MD SHPO
7. south elevation
8. 1 of 6



1. BA-2789
2. MD 151 over MD 150
3. Baltimore County
4. Eric Huffitts
5. 3/97
6. MD SHPO
7. west approach (MD 151)
8. 2 of 6



1. BA-2789
2. MD 151 over MD 150
3. Baltimore County
4. Eric Huffitts
5. 3/97
6. MD SHPO
7. north elevation
8. 3 of 6



1. BA: 2789
2. MD 151 over MD 150
3. Baltimore County
4. Eric Driffitts
5. 3/97
6. MD SHPD
7. grider detail + pier
8. 4 of 6



1. BA-2789
2. MD 151 OVER MD 150
3. Baltimore County
4. Eric Griffiths
5. 3/97
6. MD SHPO
7. east approach
8. 5 of 6



1. BA 2789
2. MB 151 over MB 150
3. Baltimore County
4. Eric Griffiths
5. 3/97
6. MD SHPD
7. south elevation of north bridge
8. 6 of 6

MARYLAND HISTORICAL TRUST NR-ELIGIBILITY REVIEW FORM

NR Eligible: yes ☐
no ☒

SHA Bridge No. 3098; MD 151 over
Property Name: MD 150 Inventory Number: BA-2789
MD 150 eastbound and westbound (Point
Address: Boulevard City: Rosedale (vicinity) Zip Code: _____
County: Baltimore USGS Topographic Map: Middle River
Owner: State of Maryland

Tax Parcel Number: N/A Tax Map Number: N/A Tax Account ID Number: N/A
Cleaning and Painting Portions of 13 Bridges in
Project: District 4 Agency: SHA

Site visit by MHT Staff: ☒ no ☐ yes Name: _____ Date: _____

Eligibility recommended ☐ Eligibility not recommended ☒

Criteria: ☐ A ☐ B ☐ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ None

Is the property located within a historic district? ☐ no ☒ Name of district: _____

Is district listed? ☐ no ☐ yes Determined eligible? ☐ no ☐ yes District Inventory Number: _____

Documentation on the property/district is presented in: Maryland Inventory of Historic Bridges

Description of Property and Eligibility Determination: (Use continuation sheet if necessary and attach map and photo)

The Maryland Inventory of Historic Bridges (bridge form for MHT No. BA-2789) was used in preparing this DOE. Reviewers and other readers are referred to the MHT Historic Bridge Form (attached) for bridge photographs (paper copies) and for additional historic information on this type of bridge. Original bridge photographs are on file at the Maryland Historical Trust (MHT).

Bridge No. 3098 is a dual, two-span, two-lane, metal girder bridge. The bridge was originally built in 1942, and the current decks were added in 1984. The structure is 162 feet long and has a clear roadway width of 37 feet; there are two sidewalks measuring four feet wide. The out-to-out width is 47 feet. The superstructure of each structure consists of 10 rolled girders that support a concrete deck and concrete parapets with metal, pedestrian barriers. The girders are 14 inches by 36 inches and are spaced 8 feet, 10 inches apart. The roadway is carried on the girders. The structure has concrete parapets with pedestrian barriers, and the roadway approaches are tangent and level with the bridge. A date impression on the south parapet indicates that the bridge was constructed in 1942 and was rehabilitated in 1984. The substructure consists of two concrete abutments and a concrete pier at mid-length. There are four, straight, concrete wing walls. The bridge has a sufficiency rating of 38.9. According to the 1995 inspection report, this structure is in fair condition with minor section loss, cracking, spalling, and scour. Among other concerns, the steel girders exhibit moderate to heavy rust at their ends and there are areas of peeling paint throughout. The bearings at both abutments are also rusted.

MARYLAND HISTORICAL TRUST REVIEW	
Eligibility recommended <input type="checkbox"/>	Eligibility not recommended <input checked="" type="checkbox"/>
Criteria: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Considerations: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> None
Comments: <u>Log # 200100810</u>	
<u>E. J. Cole</u> Reviewer, Office of Preservation Services	<u>3/12/01</u> Date
<u>[Signature]</u> Reviewer, NR program	<u>3/23/02</u> Date

MARYLAND HISTORICAL TRUST
NR-ELIBILITY REVIEW FORM

Continuation Sheet No. 1

BA-2789

According to *Historic Bridges in Maryland: Historic Context Report* (Spero and Berger 1994), a significant example of a metal girder bridge should possess character-defining elements of its type, and be readily recognizable as a historic structure from the perspective of the traveler. The integrity of distinctive features visible from the roadway approach, including parapet walls or railings, is an important quality for structures that are common examples of their type. In addition, the structure must be in excellent condition. This bridge (BA-2789) does not retain its integrity of distinctive features visible from the roadway, as the original parapets were removed and modern concrete parapets with pedestrian barriers were installed during the 1984 deck replacement. Due to the alterations of these elements, the structure is an undistinguished example of a metal girder bridge. Although the bridge retains the character-defining elements of its type, including rolled longitudinal beams, concrete abutments, and concrete piers, distinctive elements such as the original parapets have been replaced. Furthermore, the bridge is not a significant example of the work of Maryland's State Roads Commission in the 1940s. Based on these reasons, Bridge BA-2789 does not appear to be eligible for listing in the National Register of Historic Places.

Prepared by: Lauren Archibald, SHA

Date Prepared: 3/02/2001